

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) An image processing device comprising:
extraction means for extracting one or more document blocks, wherein each block contains a specific image to be processed from among a portion of an entire image including characters and/or figures;

recognition means for recognizing character code from a character image within the document block;

reconstruction means for reconstructing the document blocks in a specific shape based on the extracted document blocks, wherein the reconstructed document blocks are together less than the entire character and/or figure portion of the entire image; and

layout means for laying out character code data corresponding to the character code recognized by the recognition means within the reconstructed document blocks.

2. (Previously Presented) An image processing device as claimed in claim 1, wherein the extraction means extracts a plurality of document blocks, and the reconstruction means arranges the plurality of extracted document blocks into a single block reconstructed to the specific shape.

3. (Original) An image processing device as claimed in claim 1, wherein the specific image includes a character image of a headline and a character image of body text corresponding to the headline.

4. (Original) An image processing device as claimed in claim 3, further comprising headline character arrangement means for arranging character code data corresponding to the character image of the headline at a specific position within the reconstructed document block.

5. (Original) An image processing device as claimed in claim 1, wherein the reconstruction means adjusts a vertical or horizontal dimension of the document block to a length approximating a natural integer multiple of a length of one column of multiple columns formed within the document block.

6. (Original) An image processing device as claimed in claim 1, further comprising file generation means for generating an electronic file storing the character code data laid out by the layout means.

7. (Original) An image processing device as claimed in claim 1, further comprising a printer for printing the character code data laid out by the layout means on a recording substrate.

8. (Original) An image processing device as claimed in claim 1, further comprising a reader for optically reading an image of a document to obtain the image data to be processed.

9. (Currently Amended) A program for causing a computer to execute image processing comprising the steps of:

extracting one or more document blocks, wherein each block contains a specific image to be processed from among a portion of an entire image including characters and/or figures;

recognizing character code from a character image within the document block;

reconstructing the document blocks in a specific shape based on the extracted document blocks, wherein the reconstructed document blocks are together less than the entire character and/or figure portion of the entire image; and

laying out character code data corresponding to the recognized character code within the reconstructed document blocks.

10. (Previously Presented) A program as claimed in claim 9, wherein a plurality of document blocks are extracted at the step of extracting, and the plurality of extracted document blocks are arranged into a single block reconstructed to the specific shape at the step of reconstructing.

11. (Original) A program as claimed in claim 9, wherein the specific image includes a character image of a headline and a character image of body text corresponding to the headline.

12. (Original) A program as claimed in claim 11, wherein the image processing further comprises a step of arranging character code data corresponding to the character image of the headline at a specific position within the reconstructed document block.

13. (Original) A program as claimed in claim 9, wherein at the step of reconstructing a vertical or horizontal dimension of the document block is adjusted to a length approximating a natural integer multiple of a length of one column of multiple columns formed within the document block.

14. (Original) A program as claimed in claim 9, wherein the image processing further comprises a step of generating an electronic file storing the character code data laid out at the step of laying out.

15. (Original) A program as claimed in claim 9, wherein the image processing further comprises a step of printing on a recording substrate the character code data laid out at the step of laying out.

16. (Original) A program as claimed in claim 9, wherein the image processing further comprises a step of reading an image of a document to obtain the image data to be processed.

17. (Currently Amended) An image processing method comprising the steps of:

extracting one or more document blocks, wherein each block contains a specific image to be processed from a portion of an entire image among image data including characters and/or figures;

recognizing character code from a character image within the document block;

reconstructing the document blocks in a specific shape based on the extracted document blocks, wherein the reconstructed document blocks are together less than the entire character and/or image portion of the entire image; and

laying out character code data corresponding to the recognized character code within the reconstructed document blocks.

18. (Previously Presented) An image processing device as claimed in claim 1, wherein the extracted document block is a marked portion of the entire image.

19. (Previously Presented) An image processing device as claimed in claim 1, wherein the extracted document block is a headline and body text of the entire image.

20. (Previously Presented) An image processing device as claimed in claim 1, wherein the extracted document block also includes a photographic image area that is extracted and laid out with the character code data.

21. (Previously Presented) A program as claimed in claim 9, wherein the extracted document block is a marked portion of the entire image.

22. (Previously Presented) A program as claimed in claim 9, wherein the extracted document block is a headline and body text of the entire image.

23. (Previously Presented) A program as claimed in claim 9, wherein the extracted document block also includes a photographic image area that is extracted and laid out with the character code data.

24. (Previously Presented) A method as claimed in claim 17, wherein the extracted document block is a marked portion of the entire image.

25. (Previously Presented) A method as claimed in claim 17, wherein the extracted document block is a headline and body text of the entire image.

26. (Previously Presented) A method as claimed in claim 17, wherein the extracted document block also includes a photographic image area that is extracted and laid out with the character code data.

27. (Currently Amended) An image processing device comprising:

an extraction unit adapted to extract one or more document blocks, wherein each block contains a specific image to be processed from among a portion of an entire image including characters and/or figures;

a recognition unit adapted to recognize character code from a character image within the document block;

a reconstruction unit adapted to reconstruct the document blocks in a specific shape based on the extracted document blocks, wherein the reconstructed document blocks are together less than the entire character and/or figure portion of the entire image; and

a layout unit adapted to lay out character code data corresponding to the character code recognized by the recognition means within the reconstructed document blocks.

28. (New) An image processing device as claimed in claim 1, wherein an area of the reconstructed document blocks is the same as a total area of the extracted document blocks.

29. (New) A program as claimed in claim 9, wherein an area of the reconstructed document blocks is the same as a total area of the extracted document blocks.

30. (New) An image processing method as claimed in claim 17, wherein an area of the reconstructed document blocks is the same as a total area of the extracted document blocks.

31. (New) An image processing device as claimed in claim 27, wherein an area of the reconstructed document blocks is the same as a total area of the extracted document blocks.